

*REMARKS/ARGUMENTS**The Restriction Requirement and Applicants' Election*

The Office Action sets forth a restriction requirement between the following two groups of claims:

- |          |  |
|----------|--|
| Group I  | claims 1-7 (directed to a plate for mass spectrometry and a method of preparation thereof), and      |
| Group II | claims 8-15 (directed to a method of identifying an analyte comprising use of the plate of claim 1). |

Applicants elect, with traverse, the claims of Group I, i.e., claims 1-7 (directed to a plate for mass spectrometry and a method of preparation thereof).

In regard to the election, Applicants respectfully submit that the claims of Group II (i.e., claims 8-15, which are directed to a method of identifying an analyte comprising use of the plate of Group I) should be examined with the claims of Group I for the reasons set forth below.

*Discussion*

According to the Examiner, Groups I and II lack a single inventive concept under PCT Rule 13.1. More specifically, the Examiner contends that the only common technical feature in both groups is a plate comprising a support and a polyvinylidene difluoride coating. However, a plate comprising a support and a polyvinylidene difluoride coating allegedly is disclosed in Lueking et al. (*Analytical Chemistry*, 270: 103-111 (1999)). Thus, the Examiner contends that the claimed plate is not inventive and cannot serve as a single inventive concept.

This application is a U.S. national stage application based on the international application PCT/JP03/12711. Under PCT Rule 13.1 (37 C.F.R. § 1.475), a group of inventions is considered linked to form a single general inventive concept where there is a technical relationship among the inventions that involves at least one common or corresponding special technical feature. See, e.g., M.P.E.P. § 1893.03(d). The expression “special technical features” is defined as meaning those technical features that define the

contribution which each claimed invention, considered as a whole, makes over the prior art.  
*Id.*

The special technical feature linking the present claims is a plate for mass spectrometry comprising a polyvinylidene difluoride (PVDF)-containing coating. A PVDF-containing coating refers to a thin layer formed by depositing PVDF molecules in dispersion on the support, rather than to a layer prepared by overlaying a previously molded structure on the support as with a conventionally known PVDF membrane. See the specification at, for example, page 7, lines 17-21. In comparison, Lueking et al. merely discloses a PVDF filter (namely a PVDF membrane) fixed with tape on a plastic tray. In Lueking et al., the PVDF molecules are not deposited in dispersion on the support. Thus, the special technical feature of a PVDF-containing coating is not disclosed or suggested by the cited reference, and this special technical feature can serve as a single inventive concept for claims 1-15.

Applicants note that the wording “for mass spectrometry” defines not only the intended use of the plate but also the structure thereof. More specifically, the shape of the plate for mass spectrometry of the present invention is designed to fit into the sample inlet of a mass spectrometer (see, e.g., page 7, lines 7-9, of the specification). Therefore, the phrase “for mass spectrometry” provides a structural limitation in defining the claimed subject matter, such that the phrase carries patentable weight and must be taken into account when considering the patentability of the plate of the present invention. Since mass spectrometry is not used for analyzing proteins in Lueking et al, the disclosed plastic tray with a PVDF filter is not designed to fit into the sample inlet of a mass spectrometer. Therefore, the cited reference also fails to teach the feature “for mass spectrometry,” as required by pending claims 1-15.

As discussed above, the pending claims have in common a special technical feature, which defines the contribution that each claim makes over the prior art. As a result, the pending claims of the present invention are linked so as to form a single general inventive concept. For example, the claims of Group I (claims 1-7) are directed to a plate for mass spectrometry and a method of preparation thereof. The claims of Group II (claims 8-15) are directed to a method of using a plate for mass spectrometry of claim 1 (i.e., Group I).


Given the special technical feature common to all of the claims, any search and consideration of the claimed subject matter of Group I will necessarily overlap the search and consideration of the claimed subject matter of Group II. This does not mean that the claims necessarily stand and fall together, but the overlapping relevance of references remains and mitigates against the restriction requirement.

Accordingly, there would appear to be sufficient similarity between the claims of Groups I and II to allow for the search and examination of the subject matter of claims 1-15 at the same time without a serious burden being placed on the Examiner. Applicants, therefore, respectfully request the withdrawal of the restriction requirement, and respectfully submit that the claims of Groups I and II should be examined together. If, however, the restriction requirement is not withdrawn, Applicants request that the claims of Group II (i.e., claims 8-15) be rejoined for examination upon an indication of allowable subject matter and to the extent the claims of Group II are drawn to a method of using a plate for mass spectrometry as recited in an allowed claim of elected Group I.

*Conclusion*

Applicants respectfully submit that the restriction requirement is improper and should be withdrawn. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned.

Respectfully submitted,

  
John Kilyk, Jr., Reg. No. 30,763  
LEYDIG, VOIT & MAYER, LTD.  
Two Prudential Plaza, Suite 4900  
180 North Stetson Avenue  
Chicago, Illinois 60601-6731  
(312) 616-5600 (telephone)  
(312) 616-5700 (facsimile)

Date: May 1, 2009